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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,002	11/26/2003	David Hoerl	105479-58451 (644-036)	7544
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GIBBONS P.C. ONE GATEWAY CENTER NEWARK, NJ 07102			EXAMINER NGUYEN, THU HA T	
			ART UNIT 2453	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPDocket@gibbonslaw.com

Office Action Summary

Application No.

10/724,002

Applicant(s)

HOERL, DAVID

Examiner

THU HA T. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2 and 5-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2, 5-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/200)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

1. Claims **2, and 5-46** are presented for examination.
2. Claims 2, 5-6, and 27 are currently amended.
3. Claims 1, 3-4 are cancelled without prejudice.

Continued Examination Under 37 CFR 1.114

4. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 30, 2010 has been entered.

Response to Arguments

5. Applicant's arguments filed 12/22/09 and 07/30/10 have been fully considered but they are not persuasive.
6. Applicant argues that there is no motivation to combine the references.

In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re*

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Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, the reason to include LCD controller that includes video digitizer for converting analog-to-digital signals because it would provide an improvement in performance and fidelity system by using LCD driving circuit without the need to make many analog adjustments (see Chiang col. 6, lines 5-18).

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. The analysis under 35 U.S.C. 112, first paragraph, requires that the scope of protection sought be supported by the specification disclosure. The pertinent inquiries include determining (1) whether the subject matter defined in the claims is described in the specification and (2) whether the specification disclosure as a whole is to enable one skilled in the art to make and use the claimed invention.

(1) Claims 1, 6 and 27 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the

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inventor(s), at the time the application was filed, had possession of the claimed invention.

The "invention" for the purpose of the first paragraph analysis is defined by the claims. The description requirement is simply that the claimed subject matter must be described in the specification. The function of the description requirement is to ensure that the applicant had possession of the invention on the filing date of the application. The application need not describe the claim limitations exactly, but must be sufficiently clear for one of ordinary skill in the art to recognize that the applicant's invention encompasses the recited limitations. The description requirement is not met if the application does not expressly or inherently disclose the claimed invention.

Specification does not explicitly describe nor is sufficiently clear for one of ordinary skill in art to recognize the limitation as recited in claims 1, 6 and 27 "a second communications medium".

Claims 1, 6 and 27 are unclear that the one ordinarily skilled in the art cannot recognize the encompassed claim limitation. According to specification, the communication medium (e.g., a network, LAN, WAN, Internet, etc.), see page 23, figure 1 shows only one (1) the Internet/LAN 108. The examiner cannot find anywhere in the specification that discloses or supports the feature of second communications medium.

(2) Claims 1, 6, and 27 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is

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most nearly connected, to make and/or use the invention. The enablement requirement necessitates a determination that the disclosure contains sufficient teaching regarding the subject matter claimed as to enable one skilled in the pertinent art to make and use the claimed invention. In essence, the scope of enablement provided to one ordinarily skilled in the art by the disclosure must be commensurate with the scope of protection sought by the claims.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2-3, and 5-46 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over **Comstock et al.** (hereinafter Comstock) US. Pub. No. **2004/0083266**, in view of **Chiang** U.S. Patent No. **6,271,822**.

11. As to claim 2, **Comstock** teaches the invention as claimed, including a Keyboard, Video, Mouse ("KVM") system with improved video digitization and image correction, said KVM system comprising:

a plurality of workstations each containing at least a keyboard or cursor control device (fig. 1, paragraph 0023)

wherein the plurality of workstations are coupled to a remote management unit via a first communications medium (figures 1-2);

a plurality of remote networking devices coupled to the remote management unit via a second communications medium (fig. 1);

wherein the remote management unit includes a digitizer for converting analog video signals received from at least one of the remote networking devices to image correction processed digital video signals (figure 2, paragraphs 0030-0032, 0035-0034), and further includes modules for processing and bidirectionally communicating over the first communication medium keyboard and cursor control signals to and from the plurality of workstations (figure 2, paragraphs 0012, 0035-0040) and for transmitting the image correction processed digital signals to the plurality of workstations, and wherein all keyboard and cursor control device signals bidirectionally pass through video conference terminal unprocessed (figure 2, paragraph 0030-0033, 0035-0046).

Comstock teaches a digitizer 104 converting analog video signals to digital video signals. However, **Comstock** does not explicitly teach a LCD controller for converting analog video signals to digital video signals and wherein all keyboard and cursor control device signals pass through the LCD controller unprocessed.

Chiang teaches a LCD controller for converting analog video signals to digital video signals and wherein all keyboard and cursor control device signals pass through the LCD controller unprocessed (abstract, col. 3, line 65-col. 4, line 14, col. 5, lines 21-54).

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to modify the teachings of **Chiang** into **Comstock** system to include the LCD controller that includes video digitizer for converting analog-to-digital signals because it would provide an improvement in performance and fidelity system by using LCD driving circuit without the need to make many analog adjustments (see Chiang col. 6, lines 5-18).

12. As to claim 5, **Comstock** teaches the invention as claimed, including the system according to claim 2, wherein said first communications medium is at least one selected from the group consisting of a LAN, a WAN, a wireless connection, a modem, a direct modem connection, and the Internet (paragraphs 0020-0021).

13. As to claim 6, **Comstock** teaches the invention as claimed, including the system according to claim 2, wherein the second communications medium comprises cabling between each of the plurality of remote networking devices and the remote management unit through cabling via a port selected from the group consisting of a serial port, parallel port, keyboard port, video port, cursor control device port, USB port, firewire port, bluetooth port, Ethernet port, and a power supply port (figures 1-2, paragraphs 0020-0021).

14. As to claim 7, **Comstock** teaches the invention as claimed, including the system according to claim 2, wherein said remote management unit

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controls access by requiring identification data to authenticate a user (paragraph 0027).

15. As to claim 8, **Comstock** teaches the invention as claimed, including the system according to claim 2, wherein said remote management unit and said plurality of user workstations communicate via TCP/IP (paragraphs 0020-0023).

16. As to claim 9, **Comstock** teaches the invention as claimed, including the system according to claim 2, wherein said remote management unit and said plurality of user workstations communicate via the Internet (figures 1-2, paragraphs 0020-0021).

17. As to claim 10, **Chiang** teaches the invention as claimed, including the system according to claim 2, wherein said LCD controller includes an analog to digital converter (figure 2, abstract).

18. As to claim 11, **Chiang** teaches wherein said LCD controller includes an input interface circuit for detecting a color palette utilized by said remote network device (col. 2, lines 2-43).

19. As to claim 12, **Chiang** teaches wherein said LCD controller includes a synchronization selector circuit for receiving horizontal and vertical synchronization signals (col. 1, line 24-col. 2, line 67, col. 3, line 50-col. 5, line 9).

20. As to claim 13, **Chiang** teaches wherein said LCD controller includes a mode detection circuit for receiving said synchronization signals from said synchronization selector circuit and for determining a frequency of said synchronization signals (col. 1, line 24-col. 2, line 67, col. 3, line 50-col. 5, line 9).

21. As to claim 14, **Chiang** teaches wherein said LCD controller includes an auto-adjustment circuit for performing at least one of active area detection, pixel brightness searching, pixel measurement and phase distortion measurement (col. 6, line 28-col. 8, line 42).

22. As to claim 15, **Chiang** teaches wherein said auto-adjustment circuit updates timing of a clock during said phase distortion measurement (col. 1, line 24-48, col. 2, line 44-58).

23. As to claim 16, **Chiang** teaches wherein said LCD controller includes a downscaler circuit for reducing high video resolution to low video resolution (col. 5, line 10-47).

24. As to claim 17, **Chiang** teaches wherein said LCD controller includes an upscaler circuit for increasing low video resolution to high video resolution (col. 5, line 10-47).

25. As to claim 18, **Chiang** teaches wherein said LCD controller includes an option menu circuit for enabling a user to select one of a plurality of serial devices, remote servers, remote computers or power devices (figure 1).

26. As to claim 19, **Chiang** teaches wherein said LCD controller modifies each pixel of said digital video signals according to a color palette (col. 2, lines 2-43).

27. As to claim 20, **Chiang** teaches wherein said LCD controller includes a dithering circuit for approximating a color for a pixel of said digital video signals (col. 2, lines 2-43).

28. As to claim 21, **Chiang** teaches wherein said LCD controller includes an output interface circuit for adjusting timing of said analog video signals (col. 2, lines 2-43).

29. As to claim 22, **Comstock** teaches the invention as claimed in claim 2, wherein said remote management unit includes a video processor circuit for compressing said digital video signals (paragraphs 0038, 0065).

30. As to claim 23, **Chiang** teaches wherein said video processor circuit includes a pixel receiving circuit for receiving pixel information from said digital video signals (abstract, col. 3, line 65-col. 4, line 14, col. 5, lines 21-54).

31. As to claim 24, **Chiang** teaches wherein said video processor circuit includes a frame buffer circuit for storing said pixel information (col. 1, line 58-57).

32. As to claim 25, **Comstock** teaches the invention as claimed, including the system according to claim 22, wherein said video processor circuit includes a video compression circuit (paragraphs 0038, 0065).

33. As to claim 26, **Comstock** teaches the invention as claimed, including the system according to claim 2, wherein said processing includes converting said digital video signals for compatibility with a video display of one of said plurality of workstations (figure 2, paragraphs 0030-0032, 0035-0034).

Comstock does not explicitly teach a LCD controller.

Chiang teaches a LCD controller includes video digitizer that receives and converts analog signals into digital signals (abstract, col. 3, line 65-col. 4, line 14, col. 5, lines 21-54).

34. It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to modify the teachings of

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Chiang into **Comstock** system to include the LCD controller that includes video digitizer for converting analog-to-digital signals because it would provide an improvement in performance and fidelity system by using LCD driving circuit without the need to make many analog adjustments (see Chiang col. 6, lines 5-18).

35. As to claim 27, **Comstock** teaches the invention as claimed, including a method for providing improved video digitization and image correction for the transmission of video signals, said method comprising the steps of:

receiving analog video signals and control signals from one of a plurality of remote devices connected to a remote management unit (figures 1-2, paragraphs 0012, 0034-0040);

processing the received analog video signals using digitizer to converts the analog video signals to digital video signals (figure 2, paragraphs 0030-0032, 0035-0034) correcting the digital video signals (figure 2, paragraphs 0030-0032, 0035-0034, 0043);

passing the control signals to and from one of the plurality of remote devices through the video conferencing terminal unprocessed (paragraphs 0026, 0035-0042), and

transmitting the digital video signals and the control signals to one of a plurality of user interface devices (figures 1-2, paragraphs 0035-0046).

Comstock teaches a digitizer converting analog video signals to digital video signals. However, **Comstock** does not explicitly teach a LCD controller

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converting analog video signals to digital video signals and passing the control signals through the LCD controller unprocessed.

Chiang teaches a LCD controller converting analog video signals to digital video signals and passing the control signals through the LCD controller unprocessed (abstract, col. 3, line 65-col. 4, line 14, col. 5, lines 21-54).

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to modify the teachings of **Chiang** into **Comstock** system to include the LCD controller that includes video digitizer for converting analog-to-digital signals because it would provide an improvement in performance and fidelity system by using LCD driving circuit without the need to make many analog adjustments (see Chiang col. 6, lines 5-18).

36. As to claim 28, **Comstock** teaches the invention as claimed, including the method according to claim 27, wherein said user interface devices are accessible by inputting unique authentication information (paragraph 0027).

37. As to claim 29, **Comstock** teaches the invention as claimed, including the method according to claim 27, wherein said method further comprises the step of: displaying said digital video signals on a video display of one of said user interface devices (figure 2, paragraphs 0043-0046).

38. As to claim 30, **Comstock** teaches the invention as claimed, including the method according to claim 27, wherein said method further

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comprises the step of: compressing said digital video signals prior to said transmitting (paragraphs 0038, 0065).

39. As to claim 31, **Comstock** teaches the invention as claimed, including the method according to claim 30, wherein a compression algorithm is used to perform said compressing (paragraphs 0038, 0065).

40. As to claim 32, **Chiang** teaches wherein said compression algorithm determines noise in said digital video signals, smoothes said digital video signals, determines changes to pixels of said digital video signals, and compresses said changed digital video signals (col. 1, line 24-col. 2, line 67, col. 3, line 50-col. 5, line 9).

41. As to claim 33, **Comstock** teaches the invention as claimed, including the method according to claim 27, wherein said transmitting occurs via TCP/IP (paragraphs 0020-0022).

42. As to claim 34, **Chiang** teaches wherein said correcting comprises image correction (col. 1, line 24-col. 2, line 67, col. 3, line 50-col. 5, line 9).

43. As to claim 35, **Chiang** teaches wherein said image correction includes detecting a color palette of said digital video signals (col. 2, lines 2-43).

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44. As to claim 36, **Chiang** teaches wherein said correcting includes receiving horizontal and vertical synchronization signals (col. 1, line 24-col. 2, line 67, col. 3, line 50-col. 5, line 9).

45. As to claim 37, **Chiang** teaches wherein said correcting includes determining one or more frequencies of said digital video signals (col. 1, line 24-col. 2, line 67, col. 3, line 50-col. 5, line 9).

46. As to claim 38, **Chiang** teaches wherein said correcting includes detecting an active area of a video image represented by said digital video signals (col. 9, line 50-col. 11, line 20, col. 15, line 66-col. 17, line 37).

47. As to claim 39, **Chiang** teaches wherein said correcting includes determining brightness of each pixel of said digital video signals (col. 6, line 28-col. 8, line 42).

48. As to claim 40, **Chiang** teaches wherein said correcting includes measuring phase distortion of said digital video signals (col. 1, line 24-48, col. 2, line 44-58).

49. As to claim 41, **Chiang** teaches wherein said correcting includes measuring one or more pixels of said digital video signals (col. 1, line 24-48, col. 2, line 44-58).

50. As to claim 42, **Chiang** teaches wherein said correcting includes reducing high video resolution to low video resolution (col. 5, line 10-47).

51. As to claim 43, **Chiang** teaches wherein said correcting includes increasing low video resolution to high video resolution (col. 9, line 50-col. 11, line 20, col. 15, line 66-col. 17, line 37).

52. As to claim 44, **Chiang** teaches wherein said correcting includes dithering said digital video signals (col. 2, lines 2-43).

53. As to claim 45, **Chiang** teaches wherein said correcting includes adjusting timing of said digital video signals (col. 2, lines 2-43).

54. As to claim 46, **Chiang** teaches wherein said method further comprises the step of: storing pixel information of digital video signals (col. 1, line 58-57).

Conclusion

55. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

56. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Ha Nguyen, whose

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telephone number is (571) 272-3989. The examiner can normally be reached Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Thomas, can be reached at (571) 272-6776.

The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/THUHA T. NGUYEN/

Primary Examiner, Art Unit 2453

